Arguments in nominalisations: a unified approach to postnominal PPs and genitives in German

Torgrim Solstad

B4/D1 – SFB 732
Institut für Maschinelle Sprachverarbeitung
— Formale Logik und Sprachphilosophie —
Universität Stuttgart

Nominalizations across languages
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Outline of the talk

1. Introduction
2. Data and main claims
3. The analysis
4. Summary and future work
Main objectives of the talk

- semantic and syntactic aspects of adnominal genitives and PPs in nominalisations
- two kinds of genitives?
  - syntactic genitive – internal argument
    
    (1) die Zerstörung der Stadt
        the destruction the_{gen} city_{gen}
        ‘the destruction of the city’

  - semantic genitive – modifier
    
    (2) der Garten des Nachbarn
        the garden the_{gen} neighbour_{gen}
        ‘the neighbour’s garden’
Main objectives of the talk II

The following claims are made:

- no **syntactic** argument position for genitives
- all postnominal genitives should be treated the same way
- the analysis should preferably also cover postnominal PPs associated with arguments: *von* and *durch*

Assumptions:

- syntax of the modifier case
- underspecified semantics
postnominal genitives, *von* and *durch* phrases in German

- prenominal genitives excluded: restricted to proper names?
- event nominalisations derived by means of -*ung* suffix
(3) a. die Beschreibung der Bürgermeisterin
the description  GEN Mayoress
‘the description of the Mayoress’ or ‘the Mayoress’
description’

b. die Beschreibung durch die Bürgermeisterin
the description  through the mayoress
‘the description by the Mayoress’

c. die Beschreibung von Bürgermeisterin Müller
the description  of Mayoress Müller
‘the description of Mayoress Müller’ or ‘Mayoress Müller’s description’

d. die Lagebeschreibung der Bürgermeisterin
the situation-description GEN mayoress
‘the description of the situation by the mayoress’
All postnominal PPs and genitives occupy the same syntactic position, i.e. they are adjoined to the level of nP.

All postnominal PPs and genitives are assigned the same semantic value: they are represented by the underspecified two-place semantic relation $\rho(x,z)$. 
Two views:

- Semantics/argument structure: as genitives relate differently to the head noun, they must occupy different syntactic positions.

- Surface syntax: as there is no syntactic difference, we should assume an underspecified semantics.
The framework

- inspired by distributed morphology: constructing words from roots
- semantics: discourse representation theory including store–content differentiation
Word-syntactic structure of *Beschreibung* (simplified)
Word-syntactic (and semantic) assumptions

- Assuming the Voice hypothesis, i.e. external arguments are introduced by Voice and not contained in vP.
- The suffix -ung operates on the level of vP, but has no semantic effect apart from providing a noun.
- The -ung nominalisation does not include a Voice projection.
- The variable introducing what may be termed the internal argument semantically, y, is not bound before the level at which nominalisation occurs.
- The vP level includes semantic information on the relation between the y argument and the event in which it is included.
Semantic construction with genitives and *von* phrases 1

(4) The representation of vP and nP:

\[
\begin{array}{c}
\text{s} \\
\langle e, y \\
\text{STATE}(s) \\
\text{BESCHREIBEN}(e) \\
\text{INT-SEM-ROLE}(y,e) \\
\text{e CAUSE s} \\
\end{array}
\]

(5) Representation of \( \rho \):

\[
\langle \rho, x, z \\
\rho(x,z) \\
\rangle
\]
(6) die Beschreibung der Bürgermeisterin
the description GEN Mayoress
‘the description of the Mayoress’ or ‘the Mayoress’s description’

(7) Representation of *der Bürgermeisterin*:

\[
\left\langle \rho, z \middle| \begin{array}{c}
\times \\
\rho(x,z) \\
\text{BUERGERMEISTERIN}(x)
\end{array} \right\rangle
\]
**Semantic construction with genitives and von phrases III**

(8) *Beschreibung der Bürgermeisterin* before unification:

\[
\begin{array}{c}
\langle e, y \rangle \\
\text{STATE}(s) \\
\text{BESCHREIBEN}(e) \\
\text{INT-SEM-ROLE}(y,e) \\
e \text{ CAUSE } s \\
\end{array}
\quad + 
\begin{array}{c}
\langle \rho, z \rangle \\
\rho(x,z) \\
\text{BUERGERMEISTERIN}(x) \\
\end{array}
\]

(9) *Beschreibung der Bürgermeisterin*:

\[
\begin{array}{c}
\langle e \rangle \\
\text{STATE}(s) \\
\text{BESCHREIBEN}(e) \\
\text{INT-SEM-ROLE}(y,e) \\
e \text{ CAUSE } s \\
\rho(x,z) \\
\rho=\text{INT-SEM-ROLE} \\
x=y \\
z=e \\
\end{array}
\]
Preference for object reading

- for variables, entering binding relations is preferred to existential binding
- preference for object/internal argument reading
- if variable is not bound by genitive, a binding has been overlooked, $\rho$ relation has to be accommodated
Semantic construction with *durch* phrase I

(10) die Beschreibung durch die Bürgermeisterin  
the description through the mayoress  
‘the description by the Mayoress’

(11) \(\rho=\text{AGENT}\)

(12) Representation of *durch die Bürgermeisterin*:

\[
\begin{array}{c}
\langle z \quad \rho(x,z) \quad \rho=\text{AGENT} \\
\quad \text{BUERGERMEISTERIN}(x) \end{array}
\]
Semantic construction with *durch* phrase II

(13) *Beschreibung durch die Bürgermeisterin* before unification:

\[
\begin{array}{c|c}
  s & x,\rho \\
  \hline
  \text{STATE}(s) & \rho(x,z) \\
  \text{BESCHREIBEN}(e) & \rho = \text{AGENT} \\
  \text{INT-SEM-ROLE}(y,e) & \\
  e \text{ CAUSE } s & \text{BUERGERMEISTERIN}(x)
\end{array}
\]

(14) *Beschreibung durch die Bürgermeisterin*:

\[
\begin{array}{c|c}
  s, x, z, \rho & \\
  \hline
  \text{STATE}(s) & \\
  \text{BESCHREIBEN}(e) & \\
  \text{INT-SEM-ROLE}(y,e) & \\
  e \text{ CAUSE } s & \\
  \text{BUERGERMEISTERIN}(x) & \\
  \text{AGENT}(x,z) & \\
  \rho = \text{AGENT} & \\
  z=e & \\
\end{array}
\]
No internal argument reading available:

(15) die Lagebeschreibung der Bürgermeisterin
the situation-description GEN mayoress
‘the description of the situation by the mayoress’

- Does the noun Lage bind y?
Agentive reading of genitives II

Binding of $y$ analysis too simple:

(16) a. die Personenbeschreibung der Täter
the person-description the delinquent
‘the personal description of the delinquent’

b. die Strukturbeschreibung des einfachen
the structure-description the simple
Arraymodells
array-model
‘the structural description of the simple array model’

- genitive identified with first noun in the compound (16a)
- genitive modifies the first noun in the compound (bracketing
  paradox) (16b)
Conceptualising arguments?

- *durch*: ensures AGENT interpretation
- how does the agentive interpretation of genitives emerge?
- associative relation conceptualised as agent?
Modification involving genitive and *durch* phrase I

(17)  

a. die Beschreibung der Lage durch die Bürgermeisterin
   ‘the mayoress’ description of the situation’

b. *die Beschreibung durch die Bürgermeisterin der Lage
   intended: ‘the mayoress’ description of the situation’

- additional constraint on genitives and *von* phrases: adjacency
Modification involving genitive and *durch* phrase II

\[
\begin{array}{c}
\text{nP} \\
\text{nP} \\
\text{nP} \\
\text{vP} \\
\text{n}\text{-}\text{ung}
\end{array}
\]

With "durch" phrase and genitive.
There seem to be some cases where the genitive is obligatorily interpreted as the internal argument:

(18) die Absetzung des Kanzlers  
    the unseating  the chancellor  
    ‘The unseating of the chancellor’

- Potentially problematic to the analysis presented here
- Ehrich & Rapp: always internal argument interpretation when change-of-state is present
Possible counterevidence to Ehrich & Rapp:


‘The group “revolutionary struggle” protested against the deathly destruction of the environment by the capitalistic system’
b. Eine Woche nach der *Leitzinserhöhung* der Deutschen Bundesbank . . .

-'One week after the raising of the key interest rate by the German Bundesbank . . .

- Alternative explanation: particle *ab-* involved?
General questions

- At which level are semantic entities available for modification? Compositionality.
- Are there differences between the semantic roles in the verbal and nominal domain?
a unified analysis of postnominal genitives and PPs as modifiers of -ung nominalisations in German

- All postnominal genitives and PPs occupy the same syntactic position. They are adjuncts of nP.
- All postnominal genitives and PPs are assigned a underspecified semantic representation which may be specified as being an agent in the case of durch, unified with the semantic role of the internal argument in the case of genitives or von phrases or specified otherwise according to the selectional and sortal restrictions of the nominalisation.

Future work:

- all of the above
- compounds consisting of noun--ung-nominalisation combinations
- the distribution of von and durch in passives and nominalisations